



# A Study on the Financial Performance of Prarthana Engineering Pvt. Ltd.: An Analysis of Profitability, Liquidity, and Financial Stability

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**Abstract** – This study examines the financial performance of Prarthana Engineering Pvt. Ltd., a small-scale engineering firm in Bangalore, focusing on profitability, liquidity, and financial stability as perceived by its employees. A structured questionnaire with 30 Likert-scale items was administered to 60 employees across different departments, experience levels, and age groups. The collected data were analysed using SPSS version 20. Descriptive statistics, reliability analysis (Cronbach's alpha), independent t-tests, one-way ANOVA, chi-square tests, Pearson correlation, and linear regression were performed. The results indicate that employees generally agree that the company has sound profitability (mean 3.92), liquidity (mean 3.86), and financial stability (mean 3.95). The questionnaire demonstrated excellent reliability ( $\alpha = 0.997$ ). Significant differences were observed across departments, experience levels, and age groups, with senior management and experienced employees rating financial health much more positively than their junior counterparts. Profitability emerged as the strongest predictor of overall financial stability ( $R^2 = 0.926$ ,  $p < 0.001$ ). The study recommends improved internal financial communication, especially for new hires and operational staff.

**Keywords** – Financial performance, profitability, liquidity, financial stability, Likert scale, SPSS, engineering firm.

## I. INTRODUCTION

In the current competitive business environment, the financial health of an organisation determines its survival and growth. This is especially true for small and medium enterprises (SMEs) in the engineering sector, where margins are often thin and cash flow management is critical. Prarthana Engineering Pvt. Ltd., a Bangalore-based engineering firm, has been operating for over a decade. However, there has been no systematic assessment of how its employees perceive the company's financial performance. Employee perceptions can influence morale, productivity, and even retention, making such a study valuable (Gitman C Zutter, 2015).

The primary objective of this research is to analyse the financial performance of Prarthana Engineering Pvt. Ltd. through the lens of its employees, covering three key dimensions: profitability, liquidity, and financial stability. Specifically, the study aims to (i) evaluate the overall perception of financial health, (ii) compare perceptions across demographic groups (gender, department, experience, age, role), and (iii) identify which financial dimension most strongly predicts overall financial stability. The findings are intended to help management bridge communication gaps and reinforce confidence among all staff.

## II. METHODOLOGY

### Research Design

A descriptive cross-sectional survey design was adopted. Primary data were collected using a self-administered questionnaire distributed to employees of Prarthana Engineering Pvt. Ltd. during March–April 2026.

### Sample and Participants

A total of 60 employees participated, selected through convenience sampling. The sample included equal numbers of male and female respondents (30 each). Departments represented were Finance C Accounts (17), Operations/Engineering (15), Sales C Marketing (14), Administration/HR (9), and Senior Management (5). Experience ranged from less than 2 years (11) to more than 10 years (11). Age groups covered below 25 years (11) to above 45 years (11). Roles varied from Executive/Junior Staff to Senior Manager/Above.

### Instrument

The questionnaire had two parts. Part A collected demographic information (gender, age, department, experience, role). Part B comprised 30 statements divided into three sections: Profitability Analysis (10 items, labelled P1–P10), Liquidity Analysis (10 items, L1–L10), and Financial Stability C Solvency Analysis (10 items, S1–S10). Responses were recorded on a 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.



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### Data Analysis

Data were entered into Microsoft Excel and imported into SPSS version 20. The following statistical tests were performed:

- Descriptive statistics (mean, median, mode, standard deviation)
- Cronbach's alpha for reliability
- Independent samples t-test (gender, experience extremes)
- One-way ANOVA (department, experience, age)
- Chi-square test of association
- Pearson correlation
- Linear regression
- Non-parametric tests (Mann-Whitney U, Kruskal-Wallis, Wilcoxon signed-rank)

A significance level of  $\alpha = 0.05$  was used throughout.

## III. RESULTS AND DISCUSSION

### Descriptive Statistics and Reliability

Table 1 presents the mean scores for the three composite dimensions and the overall performance. All means exceed 3.8, indicating that respondents generally agree that the company's financial health is good.

Table 1. Mean scores for financial performance dimensions

| Dimension                            | Mean (1–5) | Interpretation |
|--------------------------------------|------------|----------------|
| Profitability (mean of P1–P10)       | 3.92       | Agree          |
| Liquidity (mean of L1–L10)           | 3.86       | Agree          |
| Financial Stability (mean of S1–S10) | 3.95       | Agree          |
| Overall Performance (all 30 items)   | 3.91       | Agree          |

Cronbach's alpha values were exceptionally high: Profitability ( $\alpha = 0.994$ ), Liquidity ( $\alpha = 0.994$ ), Stability ( $\alpha = 0.994$ ), and overall ( $\alpha = 0.997$ ). These indicate excellent internal consistency; the questionnaire reliably measures the intended constructs (Nunnally C Bernstein, 1994).

### Gender Differences

Independent t-tests showed no statistically significant difference between male and female respondents on any of the three dimensions ( $p > 0.05$  for all). For instance, profitability mean for males was 3.76 and for females 4.08 ( $p = 0.206$ ). Although females rated all aspects slightly higher, the differences were not significant. This suggests that gender does not influence the perception of financial performance in this organisation.

### Department-wise Differences (ANOVA)

Significant differences were found across departments for profitability ( $p = 0.007$ ), liquidity ( $p = 0.003$ ), and stability ( $p = 0.008$ ). Table 2 summarises the means.

Table 2. Mean scores by department

| Department             | Profitability | Liquidity | Stability |
|------------------------|---------------|-----------|-----------|
| Senior Management      | 4.85          | 4.92      | 4.90      |
| Finance C Accounts     | 4.17          | 4.31      | 4.24      |
| Administration/HR      | 3.75          | 3.79      | 3.80      |
| Sales C Marketing      | 3.54          | 3.58      | 3.59      |
| Operations/Engineering | 3.28          | 3.31      | 3.35      |

Post-hoc analysis (Tukey HSD) revealed that senior management and finance departments rated financial health significantly higher than operations and sales teams. This indicates a perception gap – front-line departments are less aware of the company's sound financial position. Similar findings have been reported in other SME studies (Bambhava et al., 2013; Ganesh Kumar C Vasantha Sena, 2015), where lack of internal financial communication leads to divergent perceptions.

### Experience and Age Differences

One-way ANOVA showed highly significant differences in overall performance across experience levels ( $p < 0.001$ ). Employees with more than 10 years of experience had the highest mean (4.72), while those with less than 2 years had the lowest (2.43). A similar pattern was observed for age groups ( $p < 0.001$ ): respondents above 45 years rated profitability highest (4.66) and those below 25 years rated it lowest (2.47).

These results suggest that tenure and age strongly correlate with positive financial perception. Longer-serving employees have witnessed consistent performance over time, building confidence. Conversely, newer employees may not have been adequately informed about the company's financial strength. This finding aligns with the work of Prabhu C Ambika (2013), who noted that employee perception of organisational health improves with tenure.

### Chi-Square Tests for Associations

Chi-square tests were performed after dichotomising the overall agreement variables (Agree/Strongly Agree vs. Disagree/Neutral). Key findings:

- **Gender vs. Profitability agreement:** Significant ( $p = 0.005$ ). 86.7% of females agreed that profitability is sound, compared to 53.3% of males.
- **Department vs. Liquidity agreement:** Significant ( $p = 0.010$ ). 100% of senior managers agreed, but only 33.3% of operations employees agreed.
- **Experience vs. Stability agreement:** Highly significant ( $p < 0.001$ ). 100% of employees with more than 10 years' experience agreed, whereas only 9.1% of those with less than 2 years agreed.

These associations highlight serious communication gaps. The fact that only one in ten new employees believes the company is financially stable is a major red flag.



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Management should consider regular financial briefings and onboarding sessions that include the company's financial achievements.

### Correlation Analysis

Pearson correlation coefficients among the three dimensions were extremely high: profitability–liquidity ( $r = 0.970$ ), profitability–stability ( $r = 0.992$ ), and liquidity–stability ( $r = 0.975$ ), all significant at  $p < 0.001$ . In the perception of respondents, good profitability goes hand in hand with good liquidity and stability. This is consistent with financial theory: profitable firms typically generate sufficient cash flows to meet short-term obligations and maintain solvency (Brigham C Ehrhardt, 2017).

### Linear Regression

A linear regression was conducted with overall stability (S10) as the dependent variable and profitability (P10) and liquidity (L10) as predictors. The model explained 92.6% of the variance ( $R^2 = 0.926$ ). Profitability was a significant predictor ( $\beta = 0.906$ ,  $p < 0.001$ ), while liquidity was not ( $\beta = 0.060$ ,  $p = 0.536$ ).

### The regression equation is:

$$S10 = 0.257 + 0.8GG \times (P10) + 0.05G \times (L10)$$

This indicates that profitability is the dominant driver of perceived financial stability. For every one-point increase in profitability perception, stability perception increases by nearly 0.9 points. Liquidity adds no additional explanatory power once profitability is accounted for. This finding is particularly useful for managers: focusing on communicating profitability improvements may have the strongest impact on overall confidence.

### Non-parametric Tests

Non-parametric tests confirmed the parametric results:

- Mann-Whitney U test showed no gender difference in profitability ( $p = 0.355$ ).
- Kruskal-Wallis test confirmed significant department differences in profitability ( $p = 0.005$ ).
- Wilcoxon signed-rank test indicated no significant difference between profitability and liquidity scores ( $p = 0.078$ ), meaning respondents perceive both dimensions similarly.

These cross-validations add robustness to the findings.

## IV. CONCLUSION

This study assessed the financial performance of Parthana Engineering Pvt. Ltd. from the perspective of its employees. The main conclusions are:

1. **Overall positive perception:** Employees generally agree that the company enjoys sound profitability, liquidity, and financial stability (all means  $> 3.8$ ). The questionnaire demonstrated excellent reliability ( $\alpha > 0.99$ ).
2. **Demographic differences do exist:** While gender does not affect perception, department, experience, and age do. Senior management and finance staff are far more optimistic than operations and sales teams.

Similarly, long-tenured and older employees show much higher confidence than new and young employees.

### Practical Recommendations

- **Regular financial town-halls:** Management should hold quarterly sessions explaining financial results to all staff, especially operations and sales departments.
- **Onboarding financial module:** Include a brief on the company's financial health and historical performance in new employee orientation.
- **Department-wise dashboards:** Provide simplified financial indicators to each department, tailored to their work.
- **Mentorship programs:** Pair newer employees with experienced mentors who can share positive financial insights.

### Limitations and Future Research

The study relies on perceptual data from 60 respondents; actual financial ratios were not examined. Future research should combine employee perceptions with audited financial statements. Also, a larger sample covering multiple engineering firms would improve generalisability.

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